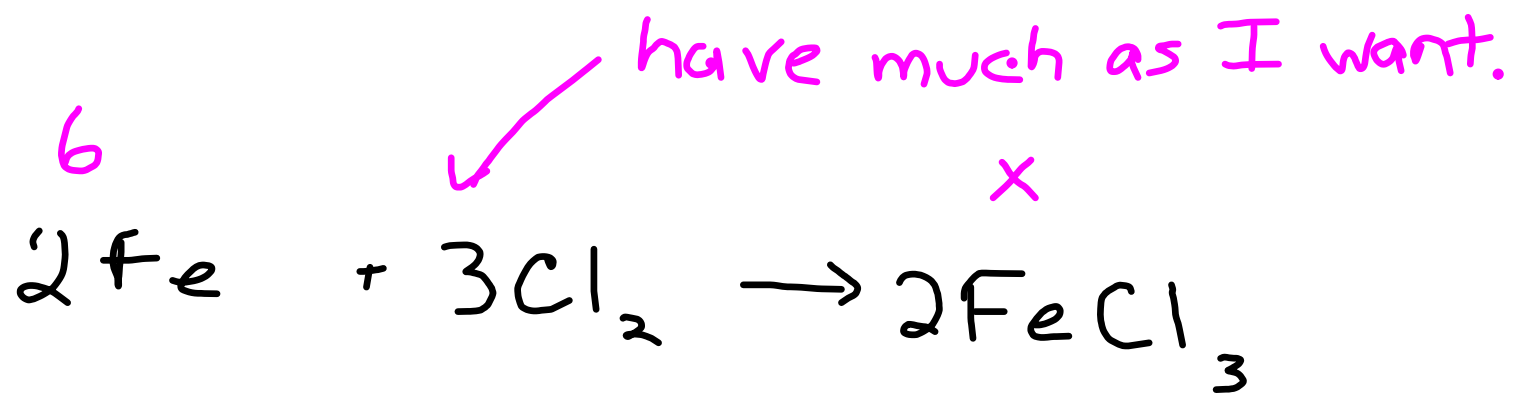
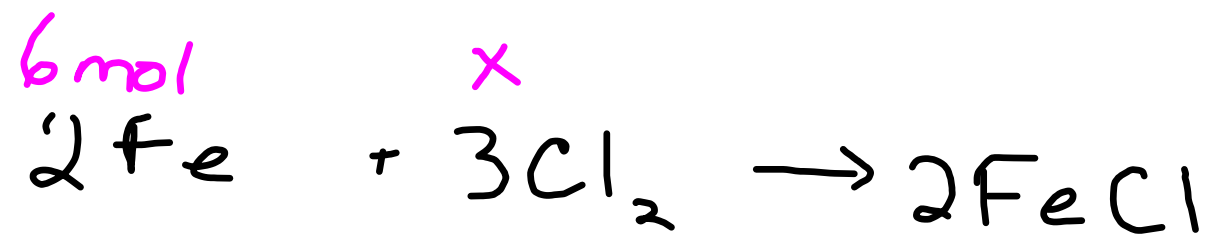
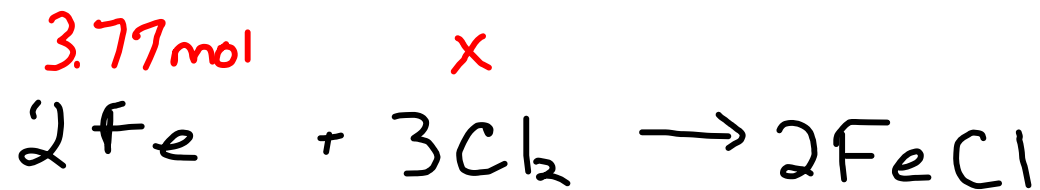




$$\frac{6}{2} = \frac{x}{2} \quad \frac{12}{2} = \frac{\cancel{2}x}{\cancel{2}} \quad x = 6 \text{ mol}$$



$$\frac{6}{2} = \frac{x}{3} \quad \frac{18}{2} = \frac{2x}{2} \quad x = 9\text{ mol Cl}_2$$



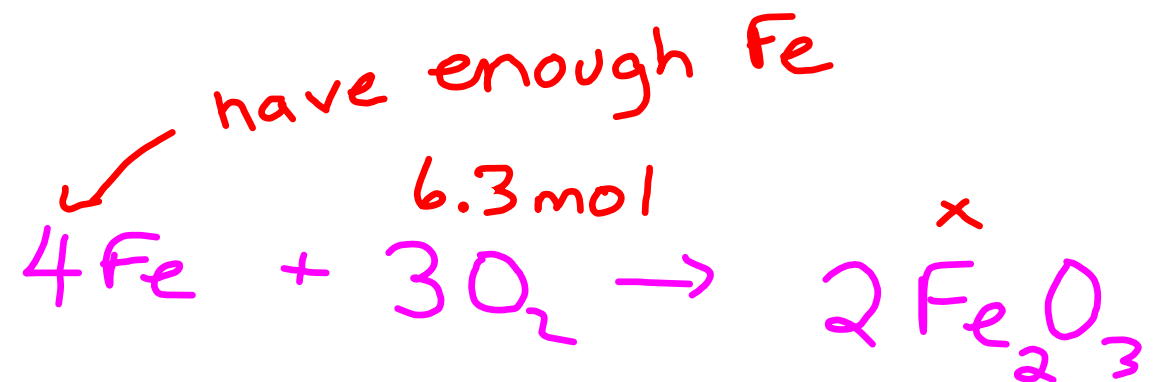
$$\frac{3.77}{2} \quad \times \quad \frac{x}{3}$$

$$(3.77)(3) = 2(x)$$

$$\frac{11.31}{2} = \frac{2(x)}{2}$$

$$x = 5.655 \text{ mol Cl}_2$$

$$x = 5.66 \text{ mol Cl}_2$$

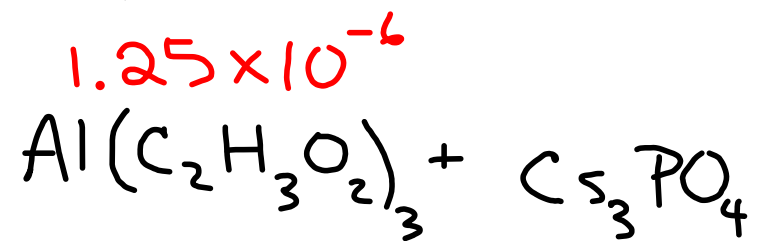
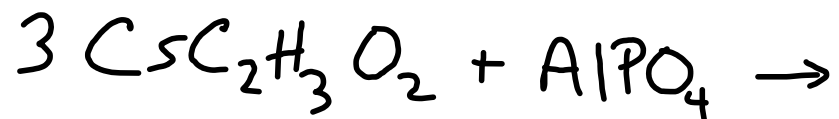


$$\frac{6.3}{3} = \frac{x}{2}$$

$$(6.3)(2) = 3(x)$$

$$\frac{12.6}{3} = \frac{\cancel{3}(x)}{\cancel{3}} \quad x = 4.2 \text{ mol Fe}_2\text{O}_3$$

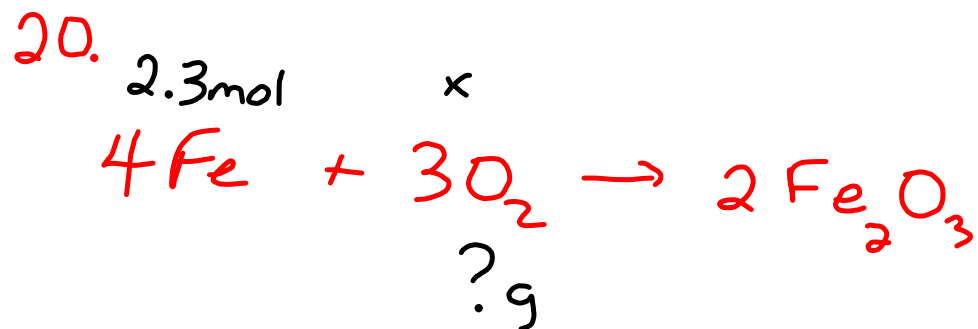
22. ~~x~~



$$\frac{\cancel{x}}{3} = \cancel{\frac{1.25 \times 10^{-6}}{1}}$$

$$(3)(1.25 \times 10^{-6}) = x$$

.00000375 mol cesium
acetate
 3.75×10^{-6} mol cesium
acetate



① $\frac{2.3}{4} \times \frac{x}{3}$ $(2.3)(3) = 4(x)$

$$\frac{6.9}{4} = \frac{4(x)}{4}$$

$$x = 1.725 \text{ mol O}_2$$

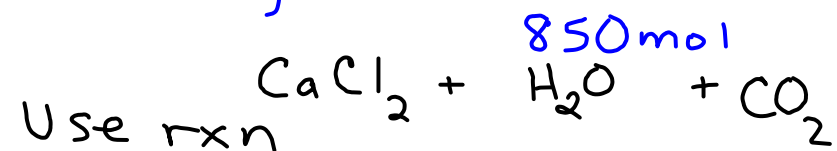
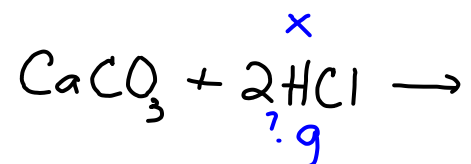
$$\frac{1.725 \text{ mol} \times 32 \text{ g}}{1 \text{ mol}} =$$

$$16 \times 2 = 32 \text{ g} = 1 \text{ mol}$$

55.2g of O₂

55g of O₂

21.



$$\frac{x}{2} = \frac{850}{1}$$

$$x = (2)(850)$$

$$x = 1700 \text{ moles of HCl}$$



$$1 \times 1 = 1$$

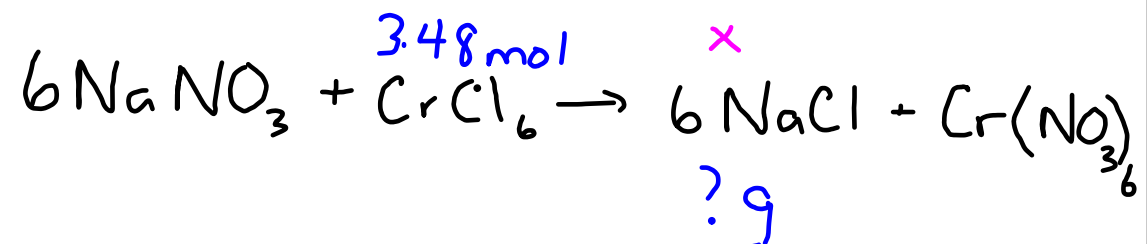
$$35.5 \times 1 = \frac{35.5}{36.5} \text{ g} = 1 \text{ mol}$$

$$\frac{1700 \text{ mol} \times 36.5 \text{ g}}{1 \text{ mol}} = 62050 \text{ g of HCl}$$

$$6.2050 \times 10^4 \text{ g of HCl}$$

$$6.2 \times 10^4 \text{ g of HCl}$$

23.



$$\frac{3.48}{1} = \frac{x}{6} \quad x = 6(3.48)$$

$$x = 20.88 \text{ mol NaCl}$$

$$\text{Na } 23 \times 1 = 23$$

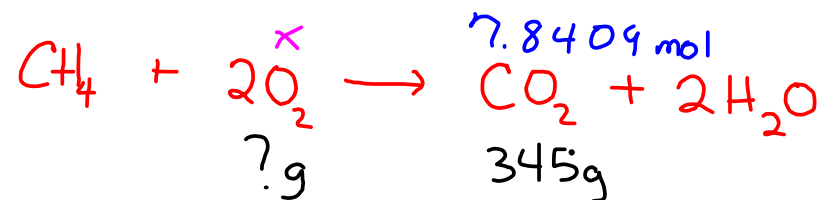
$$\text{Cl } 35.5 \times 1 = \underline{35.5}$$
$$58.5 \text{ g} = 1$$

$$\frac{20.88 \text{ mol} \times 58.5 \text{ g}}{1 \text{ mol}} =$$

$$1221.48 \text{ g}$$

$$1.22 \times 10^3 \text{ g of NaCl}$$

24.



$$\text{C } 12 \times 1 = 12$$

$$\text{O } 16 \times 2 = 32$$

$$44\text{g} = 1\text{mol}$$

$$\frac{345\text{g} \times 1\text{mol}}{44\text{g}} = 7.8409\text{mol}$$

$$\frac{7.8409\text{mol}}{1} = \frac{x}{2}$$

$$x = 15.6818 \text{ mol of O}_2$$

$$16 \times 2 = 32\text{g} = 1\text{mol}$$

$$\frac{15.6818\text{mol} \times 32\text{g}}{1\text{mol}} =$$

$$501.8\text{g of O}_2$$

$$502\text{g of O}_2$$

$$75.52\% \quad 32.634$$

$$(.7552)(32.634) = 24.6451$$

$$(.2448)(31.635) = \frac{7.7442}{32.3893g}$$

$$24.48\%$$

$$32.39g$$